f a c t s h e e t

310 CMR 7.18, 7.03, and 7.26: VOC RACT

On March 9, 2018, the Massachusetts Department of Environmental Protection (MassDEP) amended its Reasonably Available Control Technology (RACT) regulations for volatile organic compounds (VOCs) at 310 CMR 7.18, 7.03, and 7.26. The amendments incorporate requirements contained in Control Technique Guidelines (CTGs) published by the U.S. Environmental Protection Agency, and update emission limits, work practice standards, and recordkeeping requirements for the following source categories:

- Metal furniture surface coating
- Large appliance surface coating
- Surface coating of miscellaneous metal parts and products
- Packaging rotogravure and packaging flexographic printing
- Paper, film and foil surface coating
- Surface coating of plastic parts
- Flat wood paneling surface coating
- Offset lithographic printing and letterpress printing
- Industrial cleaning solvents *(new category)*
- Fiberglass boat manufacturing *(new category)*

Applicability

Applicability is based on the sum of emissions from process operations and cleaning operations. The regulations apply to operations that emit ≥ 15 pounds of VOCs per day or, in the alternative, ≥ 3 tons of VOC per rolling 12-month period, prior to the use of pollution controls, unless otherwise noted for a particular category. Revised emission limits take effect on March 9, 2020, while compliance with the coating and cleaning work practices are immediately effective. The regulations allow a one-year extension of the emission limits compliance deadline in certain circumstances.

Exemptions

In addition to specific exemptions for each category, the existing provisions in 310 CMR 7.18(2)(f) apply, which exempts the use of up to 55 gallons of coating at a facility per rolling 12 month period from the emissions limitations in recognition that some specialized operations require small quantities of non-compliant materials.

Application Method

The regulations specify allowable application methods and required work practices and allow use of coating application methods capable of achieving a transfer efficiency equivalent to or greater than that achieved by high volume low pressure (HVLP) spray guns, with prior approval from EPA.

Pollution Controls

The regulations allow facilities to use pollution controls as an alternative to meeting limits on the VOC content of materials (e.g., coatings, adhesives, solvents), in which case a facility would submit an Emission Control Plan application to MassDEP.

Recordkeeping

The regulations require records sufficient to demonstrate compliance to be kept on site for five years.

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New Categories

Industrial Cleaning Solvents

The regulations create a new Industrial Cleaning Solvent category at 310 CMR 7.18(31) that applies to any facility that emits ≥ 15 pounds per day, or in the alternative, 3 tons per year, of VOCs from the use of industrial cleaning solvents, prior to the use of pollution controls. Industrial cleaning solvents are used to clean parts, products, tools, machinery, equipment, and general work areas, including cleanup solutions and degreasing agents. Industrial cleaning solvents do not include janitorial supplies or solvents used in degreasing covered by 310 CMR 7.18(8) *Solvent Metal Degreasing*. The regulations contain a number of exemptions [see 310 CMR 7.18(31)(b)].

The regulations include work practices and three options for compliance with the VOC content of the industrial cleaning solvent:

- Use materials that meet specific VOC content limitations; or
- Use industrial cleaning solvents that have a VOC composite partial pressure equal to or less than eight mm Hg at 20°C (68°F); or
- Achieve an overall VOC control efficiency of at least 85 percent by weight using add-on air pollution capture and control equipment.

Required work practices include keeping solvent containers covered, minimizing air circulation around cleaning operations, and properly storing and disposing of used shop towels and solvent. Records demonstrating compliance must be kept on-site for five years and include VOC content, vapor pressure, or capture/control efficiency depending on the compliance option.

Fiberglass Boat Manufacturing

The regulations create a new fiberglass boat manufacturing category at 310 CMR 7.18 (32) that applies to a facility that, on or after March 9, 2020, emits ≥ 15 pounds of VOCs per day or, in the alternative, ≥ 3 tons of VOC per rolling 12-month period, prior to the use of pollution controls. The regulations do not apply to:

- surface coatings applied to boats;
- closed molding operations; and
- industrial adhesives (with the exception of polyester resin putties used to assemble fiberglass parts).

The regulations contain a number of exemptions [see 310 CMR 7.18(32)(c)].

The regulations include work practices and four options for compliance with the monomer (the basic building block of fiberglass resins) VOC content limitations for open molding resins and gel coats:

- use materials that meet specific VOC content limitations;
- emit no more than a calculated weighted-average monomer VOC content for a specific category and application method;
- emit no more than a calculated facility-wide emissions average VOC emissions cap; or
- use add-on air pollution capture and control equipment approved by MassDEP.

The regulations also require compliance with emission rates for filled resins used at the facility [see 310 CMR 7.18(32)(e)5.]

The regulations exempt up to five percent by weight of non-monomer VOC content of a resin or gel coat from the VOC content limitations, while non-monomer VOC content over five percent must be added to the monomer VOC content to determine compliance [see 310 CMR 7.18(32)(e)6.].

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The regulations require that production resins (including skin coat resins) subject to specifications in 46 CFR chapter I subchapters Q (Equipment, Construction and Materials: Specifications and Approval) and T (Small Passenger Vessels (Under 100 Gross Tons)), which do not meet the requirements in 310 CMR 7.18(32)(e), must be applied with non-atomizing resin application equipment. [see 310 CMR 7.18(32)(f)].

The regulations require:

- complying with the industrial cleaning solvents work practices in 310 CMR 7.18(31)(e), such as using covers on mixing containers;
- Using VOC cleaning solvents for routine application equipment cleaning that either:
  - contain no more than five percent VOC by weight; or
  - have a VOC composite partial pressure of no more than 0.50 mm Hg at 68º F.
- Using only non-VOC solvents to remove cured resin and gel coat from application equipment.

Printing

The 310 CMR 7.18 and 7.03 VOC RACT regulations address a 'type' of printing operation, whereas MassDEP's Environmental Results Program (ERP) Printing regulations at 310 CMR 7.26(24)–(29) applies to facilities that conduct printing as their primary activity on an 'industry sector basis' as determined by the 2012 North American Industry Classification System (NAICS) codes associated with the printing industry. As a result, a non-ERP facility (i.e., NAICS code not listed in ERP) that conducts printing as an ancillary activity (i.e., on the product it manufacturers) is covered by the appropriate section of 310 CMR 7.18 but not 310 CMR 7.26 ERP regulations.

In all cases, the 310 CMR 7.18 RACT requirements cover all large facilities that conduct printing as either their primary or ancillary operation as well as all large heat-set operations.

For the Packaging Rotogravure and Packaging Flexographic Printing category, the regulations:

- Add the work practices applicability threshold of ≥ 15 pounds of VOCs per day or, in the alternative, ≥ 3 tons of VOC per rolling 12-month period, prior to the use of pollution controls; and
- As of March 9, 2020, replace the current emission limit applicability threshold of 50 tons per year of potential VOC before application of control equipment with 25 tons of VOC per rolling 12 month period per printing line before application of control equipment (with the option to obtain an enforceable limit to restrict the potential emissions of a printing line to below 25 tons per year to be exempted from these emission limits).

For the Offset Lithographic Printing and Letterpress Printing category, the regulations:

- Add the work practices applicability threshold of ≥ 15 pounds of VOCs per day or, in the alternative, ≥ 3 tons of VOC per rolling 12-month period, prior to the use of pollution controls; and
- As of March 9, 2020, replace the current offset lithographic printing press emission limit applicability threshold of 50 tons per year of potential VOC before application of control equipment with the applicability thresholds of:
  - ≥ 15 pounds of VOCs per day or, in the alternative, ≥ 3 tons of VOC per rolling 12-month period, prior to the use of pollution controls; and
  - 25 tons of VOC per rolling 12 month period per heatset web offset lithographic or heatset web letterpress printing press line before application of control equipment (with the option to obtain an enforceable limit to restrict the potential emissions of a printing line to below 25 tons per year to be exempted from these emission limits).

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